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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,765	05/09/2001	Rory A. Heim	10006454-1	3814

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,765

Applicant(s)

HEIM ET AL.

Examiner

Michael P Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-21 and 30-36 is/are allowed.
- 6) ☒ Claim(s) 1,4-12,15,22,25,26 and 28 is/are rejected.
- 7) ☒ Claim(s) 2,3,13,14,23,24 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed on November 28, 2003 has been acknowledged.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-12, 15, 22, 25, 26, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Childers et al. (US 6,305,795).

Childers et al. discloses all the claimed features of the invention including:

- an inkjet printing system (Fig. 2) configured for receiving a replaceable ink container (22), the replaceable ink container having ink extraction characteristics that vary with ink extraction (e.g. ink level vs. ink usage), the inkjet printing system comprising:

- an ink extraction control device (18) for determining ink extracted from the replaceable ink container (column 9, lines 32-33) and for selecting an ink usage rate print mode (column 9, lines 29-31) from a plurality of different ink usage rate print

modes (column 4, lines 43-48) based on ink extraction characteristics of the replaceable ink container (ink usage vs. number of drops ejected, column 9, lines 29-31);

- the plurality of different ink usage rate print modes includes at least a first printing mode with a first ink usage rate and at least a second printing mode with a second ink usage rate different from the first ink usage rate (printer has different usage rates, column 4, lines 43-48);

- the replaceable ink container has ink extraction characteristics that vary with the ink level within the replaceable ink container (column 9, lines 28-29);

the replaceable ink container has a gauge pressure characteristic based on ink usage which varies with ink level within the ink container (column 9, lines 34-36);

- ink extraction characteristics are stored on an electrical storage device (90) associated with the replaceable ink container, and wherein the ink extraction characteristics are provided to the control device after installation of the replaceable ink container into the inkjet printing system (column 9, lines 1-3);

- the monitoring and control device determines an amount of ink delivered to the printhead over a given time interval based on an extraction rate for an ink container that is determined based on ink remaining in the ink container (column 9, lines 3-12);

- the monitoring and control device adjusts rate of ink extraction from the ink delivery system by selectively controlling numbers of nozzles activated (inherent with controlling the number of drops ejected).

Allowable Subject Matter

2. Claims 2, 3, 13, 14, 23, 24, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claims 16-21 and 30-36 are allowed.

Reasons For Allowance

4. The combination or method as claimed wherein selecting a print mode froth a plurality of different print modes based on ink extraction characteristics of the replaceable ink container, wherein each print mode of the plurality of different print modes has a different pause value associated therewith (claims 2, 3, 14) or adjusting a rate of ink extraction from the supply of ink during a print operation if the ink flow from the printhead exceeds ink flow into the printhead by a threshold amount (claims 13, 16, 30) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

5. Applicant's arguments filed on November 28, 2003 have been fully considered but they are not persuasive.

Art Unit: 2863

With respect to the 35 USC 102 rejections regarding claim 1, Applicants argue that Childers does not disclose “selecting an ink usage rate print mode from a plurality of different ink usage print modes based on ink extraction characteristics of the replaceable ink container”.

Examiner’s position is that Childers discloses “selecting an ink usage rate print mode (changing the correlation between ink usage vs. number of drops ejected from the printhead, column 9, lines 30-31) from a plurality of different ink usage print modes (different ink types are used affecting different print usage rates, column 9, lines 26-29) based on ink extraction characteristics (ink usage rate, column 9, line 29) of the replaceable ink container”. It is noted that ink type affects the volume of drops ejected from the printhead and hence the rate of ink usage (column 9, lines 26-29). Thus, for a change of ink type, the system has to change the correlation between ink usage (ink type used) vs. number of drops ejected from the printhead (hence, the rate of ink usage). In other words, for a change of ink type, the system has to change (or select a different) the rate of ink usage.

Applicants further argue with regards to claim 1 that Childers does not disclose having ink extraction characteristics that vary with ink extraction.

Examiner's position is that Childers discloses having ink extraction characteristics (ink usage rate) that vary with ink extraction (volume of ink drops ejected) (column 9, lines 28-29).

With respect to the 35 USC 102 rejections regarding claim 9, Applicants argue that Childers does not disclose "a monitor and control device that adjusts the rate of ink extraction from the ink delivery system during a print operation based on ink deposited on media and ink delivered to the printhead".

Examiner's position is that Childers discloses "a monitor and control device (18 or "system", column 9, line 30) that adjusts the rate of ink extraction from the ink delivery system (rate of ink usage, column 9, lines 29-31) during a print operation based on ink deposited on media (drops ejected from the printhead, column 9, line 31) and ink delivered to the printhead (ink type used, column 9, line 31)".

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.


MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

March 7, 2003